

CLAIMS

1 1. A bottle dispensing apparatus comprising:
2 a) a frame having a supporting base, a pair of side walls with a space
3 therebetween, and a bottle dispensing opening;
4 b) a plurality of plates positioned in between the side walls and
5 supported by the frame, each plate being sized to carry a plurality of bottles to be
6 dispensed, and including means for moving bottles toward an end of each of the plates;
7 c) the frame having a dispensing channel for dispensing bottles from
8 an upper end of the frame to a lower end of the frame;
9 d) a plurality of gates at an end of each plate, each gate being
10 positioned to control the flow of bottles from one or more plates to the channel, each gate
11 being movable between open and closed positions;
12 e) the gates being configured to open when the dispensing channel
13 is emptied of bottles at the gate; and
14 f) the frame having an outlet on the frame that dispenses bottles, the
15 outlet receiving bottles from the dispensing channel.

1 2. The bottle dispensing apparatus of claim 1 wherein the frame has a front
2 with a said dispensing channel including side portions defined by a portion of each of the
3 side walls.

1 3. The bottle dispensing apparatus of claim 1 wherein each of the plates has
2 a front and a rear portion, the front portion being lower than the rear portion.

1 4. The bottle dispensing apparatus of claim 1 wherein at least a plurality of
2 the plates are parallel to other of the plates.

1 5. The bottle dispensing apparatus of claim 1 wherein at least a plurality of
2 the plates are generally flat.

1 6. The bottle dispensing apparatus of claim 1 wherein at least a plurality of

2 the plates are inclined.

1 7. The bottle dispensing apparatus of claim 1 wherein the moving means
2 comprises an inclined portion of the plates that urges bottles to move via gravity toward
3 one end of each respective plate.

1 8. The bottle dispensing apparatus of claim 1 wherein each gate has a
2 blocking portion that prevents bottles from exiting a selected plate until all bottles have
3 been dispensed from all of the plates above said selected plate.

1 9. The bottle dispensing apparatus of claim 1 wherein each gate comprises
2 a blocking portion that prevents the flow of bottles from a plate when the gate is in the
3 closed position, and a biasing means for moving the gate into an open position.

4 10. The bottle dispensing apparatus of claim 1 wherein the rear of the frame has
5 openings that communicate with the plate for adding bottles to the plates.

1 11. A bottle dispensing apparatus comprising:

2 a) a frame having a supporting base that supports a plurality of bottle
3 holding plates, each plate being sized to carry a plurality of bottles to be dispensed, and
4 including a biasing portion for moving bottles toward a selected end of each of the
5 plates;

6 b) the frame having a channel for dispensing bottles from the plates;

7 c) a plurality of gates at an end of each of the respective plurality of
8 the plates, each gate being positioned to control the flow of bottles from one or more
9 plates, each gate being movable between open and closed positions;

10 d) each gate having means for urging the gate into an open position;

11 and

12 e) the gates being configured to open one at a time as the plate above
13 the gate is emptied of bottles.

1 12. The bottle dispensing apparatus of claim 11 wherein the gates are of the
2 same general configuration.

1 13. The bottle dispensing apparatus of claim 11 wherein the urging means
2 comprises counterweights for moving the gates toward the open position.

1 14. The bottle dispensing apparatus of claim 11 wherein the channel extends
2 along a path that is next to an end of each of the plates.

1 15. The bottle dispensing apparatus of claim 11 wherein the plates are
2 inclined and the channel extends along a path that is next to a lower end of each of the
3 plates.

1 16. The bottle dispensing apparatus of claim 11 further comprising a plurality
2 of cylindrically-shaped bottles and wherein each of the plates carries a plurality of said
3 cylindrically-shaped bottles.

1 17. The bottle dispensing apparatus of claim 16 wherein the bottles are stored
2 horizontally within the frame on the plates during use.

1 18. The bottle dispensing apparatus of claim 11 wherein each gate has a
2 generally V-shaped portion.

1 19. The bottle dispensing apparatus of claim 11 wherein one or more bottles
2 traveling in the channel next to a gate hold that gate in a closed position.

1 20. The bottle dispensing apparatus of claim 11 wherein the plates empty one
2 at a time during use.